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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/090,358 06/04/98 LOPRETE

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EXAMINER

TORRENTE, D

ART UNIT

PAPER NUMBER

3746

DATE MAILED:

11/22/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/090,358	Applicant(s) LOPRETE ET AL.	
	Examiner David J. Torrente	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 8 and 15 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- | | |
|--|--|
| 14) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 17) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 15) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 18) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 16) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 19) <input type="checkbox"/> Other: _____ |

Art Unit: 3746

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention: A scroll compressor having a mechanical transmission for driving the orbiting scroll in only one direction, wherein the speed at which the orbiting scroll moves is selected by driving the motor either forward or reverse, said transmission comprising either a ratchet mechanism, or a gear reduction mechanism.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Art Unit: 3746

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with T. Olds on 16 Nov 1999 a provisional election was made without traverse to prosecute the invention of the combination using a gear reduction mechanism, claims 1-8, and 12-15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-11 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3746

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sisk, et al. (4,137,798), in view of Wallis, et al (5,803,716).
6. Sisk discloses a drive means for a compressor (see Col. 1, lines 12-15), comprising a reversible (bi-directional) rotary electric motor (18), said motor being operable to be driven in one direction at a first speed of rotation and cause said orbiting scroll to cyclically orbit in a forward direction at a first rate which is approximately equal to said first speed, and said motor being operable to be rotated in an opposed direction at said first speed, said orbiting scroll being caused to move in said forward direction when said motor is driven in said opposed direction at a rate which is different from said first rate by a mechanical transmission (16) [See Col. 1, lines 45-57]. Said different rate (i.e., when said motor is rotated in a reverse direction) is lower than said first rate. Said mechanical transmission includes a planetary gear transmission (Col. 2, lines 55-60). Said gear transmission provides a gear reduction. Clutches (38, 23) selectively transmit rotation from a motor shaft to said orbiting scroll when said shaft is driven in said one and said opposed directions (Col. 3, lines 25-50). Operation of Sisk's device is the same regardless of the type of clutch, which is a matter of design convenience (Col. 4, lines 1-5). Sisk's gear transmission is located between a shaft portion and the undisclosed compressing means.
7. Sisk does not disclose the particular style of compressor to be driven by the disclosed drive means. Wallis, for example, discloses some of the advantages of scroll compressors which were known in the art at the time of the invention. From Col. 1, lines 23-24, Wallis describes the

Art Unit: 3746

basic scroll machine and one of its greatest advantages, high efficiency. The scroll compressor disclosed by Wallis includes an orbiting scroll (58) driven by an eccentric (34).

8. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the drive apparatus of Sisk to include a scroll compressor such as disclosed by Wallis, in order to advantageously capture the compression efficiency known to be inherent to scroll compressors, optimize the compressor efficiency by reducing capacity under low load conditions, and/or accomplish capacity modulation with a reversible motor.

Allowable Subject Matter

9. Claims 8 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Sisk (4,494,447) discloses a piston compressor having capacity controlled by reversing the drive direction.
- Parker (4,137,014) discloses a two speed compressor.

Art Unit: 3746

- Ulbing (3,319,494) discloses a planetary gear reduction means for varying the output speed by reversing the input direction.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Torrente whose telephone number is (703) 306-5535. The examiner can normally be reached on M-Th, 6:30 AM - 4:00 PM, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on (703) 308-0102. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3463 for regular communications and (703) 308-7763 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.


DJT

November 17, 1999


Timothy S. Thorpe
Supervisory Patent Examiner
Group 3700